

PRO   
**Green** EXPO  
**Colorado Convention Center**

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**Innovation in the Nursery Industry:  
Options for Year Round Shipping**

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# INNOVATION IN THE INDUSTRY: OPTIONS FOR SHIPPING YEAR ROUND

- Three innovative methods of growing trees that can be shipped year round
- Clear up the confusion around container trees and grow bags
- Find out why ROOTS MATTER

## 3 METHODS... WHAT'S SO DIFFERENT?

Field Grown Trees



Grow Bag Trees



Container Trees



# WOW! LOOK AT THOSE ROOTS!

3 innovative methods for growing great roots



Field Grown Trees



Grow Bag Trees



Container Trees



## I'M DIGGING THESE ROOTS, WHY?

- They have healthy dense and fibrous white tipped roots, which are the most efficient at absorbing nutrients and carbs
- They can be transplanted at any time with little to no shock, even in the middle of August
- They have increased survivability and take half the typical establishment time
- They are smaller and lighter than a typical B&B root ball so you can ship more per truck

# GET TO THE ROOT OF THE PROBLEM

Let's look at this B&B  
root structure



## WHAT'S UP WITH THESE ROOTS?

- When a typical B&B tree is dug out of the field they loose 70-80% of their entire root system
- What is left of the roots are large in caliper with very little white hair roots
- The tree will be in shock until it is able to grow more white hair roots so that it can start absorbing the nutrients it needs
- This is why you don't see any changes in the tree up top for at least 1-3 years

# LEAVING THE TREE FEELING A LITTLE LIKE A DOG IN A LAMP SHADE

Struggling to get food and  
water and not looking so  
hot up top!





# GET TO THE ROOT OF THE PROBLEM

Look at this container  
grown tree's roots



## WHAT'S UP WITH THESE ROOTS?

Circling roots can develop if not properly cared for with correct root pruning and upsizing practices.

*The good news is this can be easily fixed with just a little cutting and scoring of the roots right before transplant*

# WHY CONTAINER TREES CAN WOW YOU

## IF YOU ARE A LANDSCAPE CONTRACTOR

- Can be shipped at any time
  - You don't have to pay someone to hold the trees for you
- Lighter and easier to plant
  - They require a smaller hole and less man and machinery power, saving you both time and money
- Have more white hair root mass
  - They will establish faster in your landscape, wowing your customers faster

# WHY CONTAINER TREES CAN WOW YOU

## IF YOU ARE A RE-WHOLESALE NURSERY

- Can be shipped at any time
  - No maintenance and storage costs, no more tired looking inventory, you can ship exactly when you need them
- Lighter weight and can fit more on a truck
  - Saving you money on freight

**SO HOW DO YOU GET  
SUCH GOOD ROOTS?**



# AIR POTS: INNOVATION FOR CONTAINER TREES

An air pot uses air to keep the roots from circling creating healthy, fibrous, white-tipped roots that absorb nutrients more efficiently.



# IN-GROUND FABRIC BAG, ROOT CONTROL BAGS AKA GROW BAGS

Fabric bags work by causing the root tips to lose their apical dominance when they encounter the fabric, encouraging them to branch laterally and thus are essentially pruned back. Roots do not circle in the fabric.



## THE GOOD OF GROW BAG TREES

- 80-90% of the root mass is harvested in a root bag tree
- Roots do not circle or girdle
- Less than half the volume of the root balls of a field grown tree (easier to lift and move)
- Save \$\$ on freight because you can fit more on a truck
- Trees will establish faster because of the large amount of roots harvested and the density of the fine white hair roots



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# HOLY WHITE HAIR ROOTS! ON WHAT? A FIELD GROWN TREE?!





# FIELD GROWN TREES WITH AWESOME ROOTS

The process of getting a field grown tree with the perfect root system and an amazing branching structure



**SO HOW DID THIS HAPPEN?**

# SELECT SUPPLIERS AND GRADE AND SET STANDARDS



Starting out right

# LAND STEWARDSHIP AND SOIL MANAGEMENT



Good groundwork



# STAKE AND TIE & PRUNING



Get it straight



# ROOT PRUNING AND WATER MANAGEMENT



Being specific

## WHAT ARE THE BENEFITS?

- Quick recovery/transplant success
  - Typically takes 3 years minimum to establish, with small diameter fibrous roots at the edge of the basket, these trees will establish in approximately half the time
- Packed with available nutrients
  - Incorporated nutrients in the soil are available to feed the tree through the first year of establishment
- Captures 70-90% of the roots
  - In an industry that accepts greater than 70% loss of absorbing roots during digging, this root ball contains 70-90 of the root mass in the basket!

## WHAT ARE THE BENEFITS?

- Wider shipping window
  - Because of the fibrous root system, the amount of roots that are harvested with the root ball and the nutrients contained within it, these trees can be shipped at any time (as long as the ground is not frozen!)
- Root ball integrity
  - Increased density of fine absorbing root mass and a firmer root ball for durable handling and shipping

**COLLECTIVELY EACH PROCESS CONTRIBUTES  
TO THE TOTAL PACKAGE OF CREATING A  
HEALTHIER, QUICKER ESTABLISHING  
FIELD GROWN TREE THAT IS UNIQUE  
TO OUR INDUSTRY**

## HOPEFULLY YOU ARE THINKING...

- More white hair roots are better
- I know how to save money with less replacements
- I can get cheaper freight costs
- I can have faster planting time
- I have no storage costs
- I can get trees shipped at any time



# THANK YOU!

Come by our booth # 1235 to see examples of grow bags, container trees and the new innovative B&B root balls. We would love to chat with you!

Special thanks to Kuenzi Turf and Nursery, Super Trees, and Purple Springs Nursery





**Thank you!**

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